



File Code: 3440 (NA-03-17)

Date: May 22, 2003

Subject: Ice Damage Evaluation Project

To: Mary O'Brien Reddan, Forest Supervisor  
Wayne National Forest

At the request of Mike Freidhof, Assistant District Ranger, and Gary Dixon, Forester of the Ironton District, FHP personnel were requested to evaluate the impact of the February 15-17, 2003, ice storm on forest insect pests and diseases on the Ironton Ranger District. The areas along Forest Road 127 and Township Road 596 were suggested as good sites to establish plots and monitor trees because of the mix of forest types and damage present within the area.

**Project Objectives:** To use several different sampling methods to evaluate the impact of the ice storm on forest insects.

### Proposed Insect Sampling Plan Methods

- 1) Funnel Trap Insect Survey : We will sample three conifer and six hardwood sites using Lindgren funnel traps with alcohol bait. Setup will be sometime in mid-April. We will check traps biweekly for 6 months. (9 sites x 2 checks per month x 6 months = 108 samples)
- 2) Individual Tree Survivability Samples: We will select 480 individual trees based on species, size, and amount of crown damage (classes include None (0%), Light (1-33%), Moderate (34-66%), and Heavy (67-100%) (see table below). Individual trees will be painted, tagged, and monitored for 5 or more years. If any tree dies, it will be cut down and autopsied for cause of death if its removal will not impact other study trees. Increment cores will be taken after 5 years to evaluate ice storm effects on radial growth.

Species	Damage Class	Size*			Total
		0-5.9"	6-11.9"	12"+	
Oak	None/Light/Moderate/ Heavy	10/10/10/10	10/10/10/10	10/10/10/10	120
Maple	None/Light/Moderate/ Heavy	10/10/10/10	10/10/10/10	10/10/10/10	120
Poplar	None/Light/Moderate/ Heavy	10/10/10/10	10/10/10/10	10/10/10/10	120
Pine	None/Light/Moderate/ Heavy	10/10/10/10	10/10/10/10	10/10/10/10	120

\*DBH



- 3) Individual Tree Insect Survey: We will band 120 individual trees with Tanglefoot® at breast height (also based on species, size, and damage class). Setup will be sometime in mid-May and bands will be removed at the end of summer.
- 4) Trap Tree/Log Survey: We will use trap trees and trap logs to survey for insect activity, logs will be put out in early May and remove along with trap trees in early August. Trap trees/logs will be allowed to be naturally infested in both damaged and undamaged areas. Trap trees/logs will be removed and from these sites and placed in rearing containers to collect and identify bark and wood-boring beetles and their natural enemies.

### **Proposed Sample Processing**

We will arrange a service contract with the Carnegie Museum of Natural History in Pittsburgh, Pennsylvania, to sort, identify, and voucher all specimens.

If you or any of your staff have any questions or comments about our plans, please do not hesitate to call Rick Turcotte at (304) 285-1544.

Sincerely,

JOHN W. HAZEL  
Field Representative  
Forest Health Protection

Cc: District Ranger, Ironton RD

RMT